

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FI	LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,577	03/28/2000		Curtis Lee Cornils	IRI05247	5755
22863	7590	01/27/2006	EXAMINER		INER
MOTOROI	LA, INC.		HENEGHAN, MATTHEW E		
1303 EAST . 1L01/3RD	ALGONQ	UIN ROAD	ART UNIT	PAPER NUMBER	
SCHAUMB	URG, IL	60196	2134		

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	09/536,577	CORNILS ET AL.			
Office Action Summary	Examiner	Art Unit			
	Matthew Heneghan	2134			
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONET	. the mailing date of this communication. (35 U.S.C. § 133).			
Status					
<ol> <li>Responsive to communication(s) filed on <u>08 Not</u></li> <li>This action is FINAL.</li> <li>Since this application is in condition for allower closed in accordance with the practice under Exercise.</li> </ol>	action is non-final. nce except for formal matters, pro				
	x parte Quayle, 1933 C.D. 11, 40	0.0.210.			
Disposition of Claims  4) □ Claim(s) 1.3.4 and 6-15 is/are pending in the a  4a) Of the above claim(s) is/are withdray  5) □ Claim(s) 1.3.4 and 6-11 is/are allowed.  6) □ Claim(s) 12-15 is/are rejected.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/o	wn from consideration.				
Application Papers					
9) The specification is objected to by the Examine 10) The drawing(s) filed on 28 March 2000 is/are:  Applicant may not request that any objection to the  Replacement drawing sheet(s) including the correct  11) The oath or declaration is objected to by the Ex	a)⊠ accepted or b)□ objected to drawing(s) be held in abeyance. See tion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:				

Application/Control Number: 09/536,577

Art Unit: 2134

## **DETAILED ACTION**

### Continued Examination Under 37 CFR 1.114

1. Claims 1, 3, 4, and 6-15 have been examined.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,592,552 to Fiat.

The Broadcast Encryption method disclosed by Fiat includes a hierarchy of encryption keys, with keys assigned to nodes at each level (see column 12, line 58 to column 13, line 10). The nodes as shown by Fiat (see Figure 3) are organized in a balanced tree, and it is impossible to assign every node a unique set of log r keys unless keys are organized in a hierarchical manner. Each node *must* have one key corresponding to each tier of the hierarchy from the top of the tree to that node. Since

Application/Control Number: 09/536,577 Page 3

Art Unit: 2134

the encryption device directly uses the memory, the devices must be coupled using electronic circuitry.

## Allowable Subject Matter

3. Claims 1, 3, 4, and 6-11 are allowed for the reasons stated in the previous office action.

## Response to Arguments

4. Applicant's arguments filed 8 November 2005 with respect to the rejections of claims 12-15 under 35 U.S.C. 102 have been fully considered but they are not persuasive.

In Fiat's system, each subscriber is assigned a set of keys; for example, Subscriber #1 is assigned keys A, B, D, and H. In balanced binary tress, such as that shown in figure 3 of Fiat, the number of nodes between any leaf and the root is, by definition, log r, where r is the number of nodes in the tree. In this scheme, the key at the tree's root (A) is common to all subscribers, the keys immediately below A, B and C, are divided between the subscribers, and so on. They keys are therefore hierarchically organized and the claims as written are anticipated.

#### Conclusion

Application/Control Number: 09/536,577

Art Unit: 2134

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- 6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- U.S. Patent No. 6,735,312 to Abdalla et al. discloses the use of hierarchically-organized redundant keys.
- U.S. Patent No. 6,880,081 to Itkis discloses a hierarchical application of encryption keys.
- 7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is

Application/Control Number: 09/536,577

Art Unit: 2134

(571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu, can be reached at (571) 272-3859.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks P.O. Box 1450 Alexandria, VA 22313-1450

Or faxed to:

(571) 273-3800

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEH

January 18, 2006

Primary Examiner
Art Unit 2135

Page 5